

ABSTRACT OF THE DISCLOSURE

An improved die stacking scheme is provided. In accordance with one embodiment of the present invention, a multiple die semiconductor assembly is provided comprising a substrate, first and second semiconductor dies, and at least one decoupling capacitor. The first semiconductor die defines a first active surface. The first active surface includes at least one conductive bond pad. The second semiconductor die defines a second active surface, the second active surface includes at least one conductive bond pad. The first semiconductor die is interposed between the substrate and the second semiconductor die such that a surface of the second semiconductor die defines an uppermost die surface of the multiple die semiconductor assembly and such that a surface of the first semiconductor die defines a lowermost die surface of the multiple die semiconductor assembly. The decoupling capacitor is secured to the uppermost die surface and is conductively coupled to at least one of the first and second semiconductor dies.